

H1N1 Flu Virus (Human Swine Influenza)

Information Resources

(last updated July 3, 2009 at 4pm)

Overview

- Confirmed cases in Ontario as of **July 3**: 3,464
- Confirmed cases in Canada as of **June 29**: 7,983 (incl. 25 deaths)
- Confirmed cases worldwide as of **July 3**: 89,921 (incl. 382 deaths)
WHO pandemic level: 6
 - [JUNE 11] World now at the start of 2009 influenza pandemic
http://www.who.int/mediacentre/news/statements/2009/h1n1_pandemic_phase6_20090611/en/index.html
- National strategic plan for emergency department management of outbreaks of novel H1N1 influenza (United States)
<http://www.acep.org/WorkArea/DownloadAsset.aspx?id=45781>

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Events

Current / Upcoming



[JULY 1] **Global Summit over Lessons Learned from Influenza (H1N1) to take place in Cancun July 1-3rd 2009**

Health representatives from forty countries, the WHO, and the Pan American Health Organization and the highest level specialists will be in attendance, from July 1st to 3rd, 2009 in Cancun.



[JULY 9] **H1N1 Preparedness Summit**

Secretaries Kathleen Sebelius (HHS), Janet Napolitano (DHS), and Arne Duncan (ED), along with Homeland Security Advisor John Brennan, will host an all-day H1N1 Flu Preparedness Summit with states to further prepare the nation for the possibility of a more severe outbreak of H1N1 flu in the fall.

Federal, state and local officials, emergency managers, educators and others will discuss lessons learned during the spring and summer H1N1 wave, and discuss best practices and preparedness priorities.

Archived

[JUNE 30] The Henry J. Kaiser Family Foundation : [Learning to live in a world with the H1N1 pandemic](#)

[JUNE 24] The Ontario Hospital Association presents [The Pandemic Influenza: Where are we now?](#)

Ministry of Health and Long-Term Care (MOHLTC)



[JULY 3] There are 3,464 confirmed cases of H1N1 flu virus reported through the integrated Public Health System (iPHIS).
http://www.health.gov.on.ca/english/public/updates/archives/hu_09/swine_flu.html

[JUNE 26] Updated: Guidelines for the Prevention and Management of Novel H1N1 Influenza Virus in Summer Camps
http://www.health.gov.on.ca/english/providers/program/emu/health_notices/summer_camps/sc_guidelines_20090626.pdf

[ARCHIVE] Previous MOHLTC updates and news conference video footage available at:
http://www.health.gov.on.ca/english/public/updates/archives/hu_09/swine_flu.html

Important Health Notices

[JUNE 11] H1N1 Update
The WHO has raised the global pandemic alert level from Phase 5 to Phase 6, signaling that a global pandemic is underway. This is based on trends in transmission globally, and does not reflect any change in severity of the circulating virus. Guidance to health care settings in Ontario remains unchanged.
http://www.health.gov.on.ca/english/providers/program/emu/health_notices/ihn_20090611.pdf

Ontario Agency for Health Protection and Promotion (OAHPP)

[ARCHIVE] Swine Influenza Outbreak page (no new resources since May 3)
<http://www.oahpp.ca/SRI%20Bulletin.php>

Public Health Agency of Canada (PHAC)



[JULY 2] International meeting advances global response to H1N1
Canada continues to play a leadership role
http://www.phac-aspc.gc.ca/media/nr-rp/2009/2009_0702-eng.php

[JUNE 30] Prevention and Management of Cases of Influenza-Like-Illness (ILI) Suspected to be due to H1N1 Flu Virus in Day and Residential Camps
<http://www.phac-aspc.gc.ca/alert-alerte/swine-porcine/guidance-orientation-06-30-eng.php>

[JUNE 30] Canada Continues to Work with National and International Partners to Manage the Spread of the H1N1 Flu Virus
http://www.phac-aspc.gc.ca/media/nr-rp/2009/2009_0629-eng.php

[JUNE 29] As of June 29, 2009, a total of 7,983 laboratory-confirmed cases of H1N1 flu virus have been reported in all provinces and territories in Canada (see Table 1 below). To date, 538 hospitalizations and 25 deaths have been reported among laboratory-confirmed cases.

Province / Territory	NEW as of June 29, 2009			TOTAL		
	Laboratory-confirmed cases ¹	Hospitalizations	Deaths	Laboratory-confirmed cases	Hospitalizations ^{2,3}	Total deaths ²
British Columbia ⁴	6	0	0	270	6	0
Alberta	87	2	0	880	34	1
Saskatchewan ⁴	54	0	2	739	9	2
Manitoba ⁴	NR	0	0	599	83	2
Ontario ⁴	NR	40	2	3161	138	9
Quebec ^{4,5}	NR	28	0	1834	247	11
New Brunswick	0	0	0	9	0	0
Nova Scotia	8	15	0	138	1	0
Prince Edward Island	0	0	0	3	0	0
Newfoundland and	1	0	0	32	0	0
Yukon	0	0	0	1	0	0
Northwest Territories	0	0	0	7	0	0
Nunavut	52	0	0	310	20	0
Total	208	85	4	7983	538	25

NR : No report

¹ Note: P/Ts may choose to announce cases that have been confirmed after 15:00 EDT. These cases will be reflected in the next epidemiological update.

² Number of deaths and hospitalizations are included in the number of cases.

³ Hospitalizations are not reported until investigation forms are received which can cause a delay in the reporting.

⁴ **British Columbia, Saskatchewan, Manitoba, Ontario and Quebec are now reporting case counts on a weekly basis.**

⁵ Quebec searches systematically for influenza H1N1 among all ILI hospitalized patients which may explain high numbers.

* There are "40" **new** hospitalizations in Ontario. The original update indicated there were "138". The **total** number of hospitalizations in Ontario should have been reported as "138", the original update reported "236". As a result, the overall number of new hospitalizations is now "85" instead of "140", and the total number of hospitalizations is "538" instead of "636" as originally reported.

<http://www.phac-aspc.gc.ca/alert-alerte/swine-porcine/surveillance-eng.php>

[ARCHIVE] Previous PHAC documents and updates available from:

http://www.phac-aspc.gc.ca/alert-alerte/swine_200904-eng.php

Centers for Disease Control and Prevention (CDC)

The CDC now posts case count updates on Friday only.



[JULY 2] Cases: 33,902 Deaths: 170
<http://www.cdc.gov/h1n1flu/update.htm>



[JUNE 30] Update: Questions & Answers Novel H1N1 Flu (swine flu) and you
<http://www.cdc.gov/h1n1flu/qa.htm>



[JUNE 30] Pregnant women and novel Influenza A (H1N1) virus: considerations for clinicians
http://www.cdc.gov/h1n1flu/clinician_pregnant.htm



[JUNE 30] Novel H1N1 Flu and Camp
<http://www2a.cdc.gov/podcasts/player.asp?f=13124>

[JUNE 29] CDC Telebriefing on Investigation of Human Cases of Novel Influenza A (H1N1)
<http://www.cdc.gov/media/transcripts/2009/t090626.htm>

[ARCHIVE] Previous CDC documents and updates available from:
<http://www.cdc.gov/h1n1flu/guidance/>

Center for Infectious Disease Research and Policy



[JULY 1] Update
<http://www.cidrap.umn.edu/cidrap/content/influenza/swineflu/biofacts/swinefluoverview.html>



[JULY 1] News Scan
<http://www.cidrap.umn.edu/cidrap/content/influenza/swineflu/resources/swinefluress.html>

[ARCHIVE] Older updates from CIDRAP available at:
<http://www.cidrap.umn.edu/cidrap/content/influenza/swineflu/index.html>

Health Protection Agency (UK)



[JULY 2] Update on swine flu cases: 7,447
http://www.hpa.org.uk/web/HPAweb&HPAwebStandard/HPAweb_C/1246433628567

[JULY 2] Pregnancy and Swine Flu
http://www.hpa.org.uk/web/HPAweb&HPAwebStandard/HPAweb_C/1246607834101

[JULY 2] Treatment approach announced for pandemic flu
http://www.hpa.org.uk/web/HPAweb&HPAwebStandard/HPAweb_C/1246519368102

[JUNE 30] Swine Flu Sample Resistant to Antiviral Oseltamivir
http://www.hpa.org.uk/web/HPAweb&HPAwebStandard/HPAweb_C/1246345135429

[ARCHIVE] Swine Influenza page:
<http://www.hpa.org.uk/webw/HPAweb&Page&HPAwebAutoListName/Page/1240732817665?p=1240732817665>

European Centre for Disease Prevention and Control (ECDC) and European Society for Clinical Microbiology and Infectious Diseases

[JUNE 26] Situation report: Cumulative number of cases in the EU and EFTA countries is now 6,173, including two deaths.
Main developments in past 24 hours:

- 55 new cases were reported in EU and EFTA countries;
- 1,401 new cases were reported from non-EU and EFTA countries;
- The total number of fatal cases worldwide is 324;
- 4 new fatal cases have been reported from non-EU and EFTA countries: Australia (2), Thailand (1) and Brazil (1);
- Denmark health authorities are reporting today an isolated case of oseltamivir resistance.

http://ecdc.europa.eu/en/files/pdf/Health_topics/Situation_Report_090629_1700hrs.pdf

[ARCHIVE] Maps, surveillance summaries and previous ECDC updates available from:
<http://www.ecdc.europa.eu/en/Health%5Ftopics/novel%5Finfluenza%5Fvirus/2009%5FOutbreak/>

World Health Organization (WHO)



[JULY 2] Keynote speech at a high-level meeting on influenza A(H1N1): lessons learned and preparedness Cancun, Quintana Roo, Mexico 2 July 2009 Influenza A(H1N1): lessons learned and preparedness
http://www.who.int/dg/speeches/2009/influenza_h1n1_lessons_20090702/en/



[JULY 3] Update 57: Cumulative total number of cases worldwide: 89,921 (incl. 382 deaths)
http://www.who.int/csr/don/2009_07_03/en/index.html

[ARCHIVE] WHO H1N1 Guidance documents available at:
<http://www.who.int/csr/disease/swineflu/guidance/en/index.html>

[ARCHIVE] Older WHO updates available at:
<http://www.who.int/csr/disease/swineflu/en/index.html>

Pan-American Health Organization (PAHO)



[JULY 2] Influenza A (H1N1) Regional Report
As of 2 July 2009, a total of **65,256 confirmed cases** of the pandemic H1N1 2009, including **365 deaths**, have been notified in **29 countries of the Americas**.
The following overseas territories have confirmed cases of pandemic H1N1 2009: Bermuda, UK Overseas Territory (1); Cayman Islands, UK Overseas Territory (14); British Virgin Islands, UK Overseas Territory (2); Martinique, French Overseas Community (2); Netherlands Antilles, Curaçao: (8)(*); Netherlands Antilles, Aruba (5); and Netherlands Antilles, St. Maarten (7).
WHO is not recommending any travel restrictions related to the pandemic H1N1 2009.
(*). Three confirmed cases were registered on a cruise ship.
http://new.paho.org/hq/index.php?option=com_content&task=view&id=1564&Itemid=1167

[ARCHIVE] PAHO Influenza A (H1N1) Portal
http://new.paho.org/hq/index.php?option=com_content&task=blogcategory&id=805&Itemid=569&lang=en

Australia

[JULY 3] Update bulletin Case count: 4958 Deaths: 10
<http://www.healthemergency.gov.au/internet/healthemergency/publishing.nsf/Content/updates-5july09.htm>

[JUNE 17] The Federal Minister for Health and Ageing, Nicola Roxon, after consultation with State and Territory governments, announced

that Australia has developed a new response phase to manage the outbreak of H1N1 Influenza 09 (Human Swine Influenza) called **PROTECT**.

<http://www.healthemergency.gov.au/internet/healthemergency/publishing.nsf/Content/home-1>

Business Resources

Harvard Health Publications

Business Preparedness for Pandemic: Executive briefing for corporate and governmental decision-makers

https://www.health.harvard.edu/special_health_reports/Business-Preparedness-for-Pandemic?utm_source=twitter&utm_medium=tweet&utm_campaign=0526_tw

Link to report from U.S. Government Accountability Office re Pandemic Planning and funding

<http://www.gao.gov/new.items/d09760t.pdf>

Canadian Business

H1N1 virus: A plan for the worst

http://www.canadianbusiness.com/managing/strategy/article.jsp?content=20090615_10014_10014

Consumer Health Information Resources

Krames Patient Education Handouts - H1N1 Flu Virus

<http://www.krames.com/swine-flu.html>

MEDLINEplus - H1N1 Flu (Swine Flu)

<http://www.nlm.nih.gov/medlineplus/h1n1fluswineflu.html>

Specialized Information Service - National Library of Medicine

<http://sis.nlm.nih.gov/enviro/swineflu.html>.

Tufts University - (SPIRAL) Selected Patient Information in Asian Languages

<http://spiral.tufts.edu/topic.shtml>

Notable Research Articles



[JULY 2] Swine flu reaches into the lungs and gut

<http://www.nature.com/news/2009/090702/full/news.2009.617.htm>

!

- [JUNE 30] Swine flu of 1976: lessons from the past. An interview with Dr Harvey V Fineberg
<http://www.pubmedcentral.nih.gov/articlerender.fcgi?tool=pubmed&pubmedid=19565118>
- [JUNE 29] Pneumonia and Respiratory Failure from Swine-Origin Influenza A (H1N1) in Mexico. New England Journal of Medicine.
<http://content.nejm.org/cgi/reprint/NEJMoa0904252.pdf>
Appendix:
<http://content.nejm.org/cgi/content/full/NEJMoa0904252/DC1>
- [JUNE 29] Severe Respiratory Disease Concurrent with the Circulation of H1N1 Influenza. New England Journal of Medicine.
<http://content.nejm.org/cgi/reprint/NEJMoa0904023.pdf>
- [JUNE 29] Historical Perspective — Emergence of Influenza A (H1N1) Viruses. New England Journal of Medicine.
<http://content.nejm.org/cgi/reprint/NEJMra0904322.pdf>
- [JUNE 29] The Persistent Legacy of the 1918 Influenza Virus. New England Journal of Medicine.
<http://content.nejm.org/cgi/reprint/NEJMp0904819.pdf>
- [JUNE 29] Spread of a Novel Influenza A (H1N1) Virus via Global Airline Transportation. New England Journal of Medicine.
<http://content.nejm.org/cgi/reprint/NEJMp0904819.pdf>
Appendix:
<http://content.nejm.org/cgi/content/full/NEJMc0904559/DC1>
- [JUNE 29] Rapid-Test Sensitivity for Novel Swine-Origin Influenza A (H1N1) Virus in Humans. New England Journal of Medicine.
<http://content.nejm.org/cgi/reprint/NEJMc0904264.pdf>
- [JUNE 29] Effects of Oseltamivir on Influenza-Related Complications in Children With Chronic Medical Conditions
[Abstract only](#) - [Click to contact PHD Library for access to the full text](#)
- [JUNE 25] Strategy to enhance influenza surveillance worldwide / Ortiz JR, Sotomayor V, Uez OC, Oliva O, Bettels D, McCarron M, et al. Emerg Infect Dis. 2009 Aug; [Epub ahead of print]
<http://www.cdc.gov/eid/content/15/8/pdfs/08-1422.pdf>
- [JUNE 25] Rambault A. Origins and evolutionary genomics of the 2009 swine-origin H1N1 influenza A epidemic. Nature 2009; 459(7250): 1122-1125.
<http://www.nature.com/nature/journal/v459/n7250/full/nature08182.html>

- [JUNE 19] Novel Influenza A (H1N1) Virus Infections Among Health-Care Personnel --- United States, April--May 2009. Morbidity and Mortality Weekly Report (MMWR).
<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5823a2.htm>
- [JUNE 19] Comment: Patient-oriented pandemic influenza research. Lancet.
[Abstract only](#) - [Click to contact PHD Library for access to the full text](#)
- [JUNE 19] Editorial: Avoiding panic in a pandemic. Lancet.
[Abstract only](#) - [Click to contact PHD Library for access to the full text](#)
- [JUNE 19] Letter: H1N1, public health security, bioethics, and human rights. Lancet.
[Abstract only](#) - [Click to contact PHD Library for access to the full text](#)
- [JUNE 18] Editorial: Influenza A(H1N1)v in the southern hemisphere - lessons to learn for Europe? Eurosurveillance.
<http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19246>
- [JUNE 18] School closure is currently the main strategy to mitigate influenza A(H1N1)v: a modeling study Eurosurveillance.
<http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19240>
- [JUNE 18] A variety of respiratory viruses found in symptomatic travellers returning from countries with ongoing spread of the new influenza A(H1N1)v virus strain. Eurosurveillance.
<http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19242>
- [JUNE 16] Toshihiro Tanaka, Ken Nakajima, Atsuko Murashima, Facundo Garcia-Bournissen, Gideon Koren, and Shinya Ito. Safety of neuraminidase inhibitors against novel influenza A (H1N1) in pregnant and breastfeeding women. CMAJ published 16 June 2009, 10.1503/cmaj.090866
<http://www.cmaj.ca/cgi/rapidpdf/cmaj.090866v2>
- [JUNE 11] Preliminary analysis of Influenza A (H1n1) Individual and aggregated case reports from EU and EFTA countries / ECDC Working Group on Influenza A (H1N1). *Eurosurveillance*,
<http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19238>

- [JUNE 11] Smith GJD, Vijaykrishna D, Bahl J, et al. Origins and evolutionary genomics of the 2009 swine-origin H1N1 influenza A epidemic. *Nature* 2009.
<http://www.nature.com/nature/journal/v459/n7250/full/nature08182.html>
- [JUNE 4] Nava GM, Attene-Ramos MS, Ang JK, et al. Origins of the new influenza A (H1N1) virus: time to take action. *Eurosurveillance* 2009 Jun 4;14(22).
<http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=19228>

Clinical and Public Health Practice Tools

- [JUNE 15] Algorithms from 18 US states to assist in decisions regarding testing and treatment of H1N1
<http://www.smh.com/sections/services-procedures/medlib/Pandemic/Algorithms/Algorithms.html>

Historical Resources

Howard Markel, MD, PhD; Harvey B. Lipman, PhD; J. Alexander Navarro, PhD; Alexandra Sloan, AB; Joseph R. Michalsen, BS; Alexandra Minna Stern, PhD; Martin S. Cetron, MD. Nonpharmaceutical Interventions Implemented by US Cities During the 1918-1919 Influenza Pandemic. *JAMA*. 2007;298(6):644-654.
<http://jama.ama-assn.org/cgi/content/full/298/6/644>

Interview: Swine flu of 1976: lessons from the past. Interview with Harvey V Fineberg (WHO Bulletin June 2009)
<http://www.who.int/bulletin/volumes/87/6/09-040609.pdf>

The Swine Flu Affair: Decision-Making on a Slippery Disease [1978]
http://www.nap.edu/catalog.php?record_id=12660&utm_medium=email&utm_source=National%20Academies%20Press&utm_campaign=Swine%20Flu%203&utm_content=Downloader&utm_term

Travel Advisories

- [MAY 19] Public Health Agency of Canada no longer recommends Canadians postpone elective or non-essential travel to Mexico
<http://www.phac-aspc.gc.ca/tmp-pmv/2009/h1n1-mexico-090518-eng.php>